

STATEMENT OF BASIS (AI No. 41891)

for draft Louisiana Pollutant Discharge Elimination System permit No. LA0004073 to discharge to waters of the State of Louisiana.

THE APPLICANT IS: Pearl, Inc.
Indian Ridge Shrimp Co.
P.O. Box 177
Chauvin, LA 70344

ISSUING OFFICE: Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services
Post Office Box 4313
Baton Rouge, Louisiana 70821-4313

PREPARED BY: Kelli Hamilton

DATE PREPARED: December 7, 2009

1. PERMIT STATUS

A. Reason For Permit Action:

Permit reissuance of a Louisiana Pollutant Discharge Elimination System (LPDES) permit for a 5-year term.

B. LPDES permit - LPDES permit effective date: February 1, 2005
LPDES permit expiration date: January 31, 2010
EPA has not retained enforcement authority.

C. Date Application Received: June 29, 2009

2. FACILITY INFORMATION

A. FACILITY TYPE/ACTIVITY - shrimp processing facility

The existing facility peels, breads, and freezes shrimp.

B. FEE RATE

1. Fee Rating Facility Type: minor
2. Complexity Type: II (BPJ points to 0 as per administrative decision)
3. Wastewater Type: II
4. SIC code: 2092

C. LOCATION - 120 Hugh St. Martin Dr. in Chauvin, Terrebonne Parish
Latitude 29°23'17", Longitude 90°37'03"

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3. OUTFALL INFORMATION

Outfall 001

Discharge Type: process wastewater from the shrimp peeling operation
Treatment: screening
Location: at the point of discharge from the screen
Flow: 192,000 gpd
Discharge Route: Bayou Petit Caillou

Outfall 002

Discharge Type: process wastewater from the shrimp breeding operation and treated sanitary wastewater
Treatment: extended aeration package treatment unit
Location: at the point of discharge from the sanitary treatment system
Flow: 4400 gpd
Discharge Route: Bayou Petit Caillou

4. RECEIVING WATERS

STREAM - Bayou Petit Caillou

BASIN AND SEGMENT - Terrebonne Basin, Segment 120504

DESIGNATED USES - a. primary contact recreation
b. secondary contact recreation
c. propagation of fish and wildlife
e. oyster propagation

5. TMDL STATUS

Subsegment 120504, Bayou Petit Caillou - From LA-24 bridge to Boudreaux Canal, is not listed on LDEQ's Final 2006 303(d) list as impaired. However, subsegment 120504 was previously listed as impaired for nutrients (nitrate + nitrite as N), organic enrichment/ low DO, pathogen indicators, and phosphorus, for which the below TMDL's have been developed. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional TMDL's and/or water quality studies. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards.

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The following TMDL's have been established for subsegment 120504:

PETIT CAILLOU WATERSHED TMDL FOR BIOCHEMICAL OXYGEN-DEMANDING SUBSTANCES AND NUTRIENTS - March 31, 2008

There were six permitted dischargers located in this subsegment. Four of the permitted dischargers are located on the Petit Caillou waterbody. The other two permitted dischargers actually discharge to other streams located in the 120504 subsegment but never reach the Petit Caillou 120504 mainstem. The four permitted dischargers to Bayou Petit Caillou are Sarah Bridge STP, Indian Ridge Shrimp Company, Price Seafood, and Triple T Seafood. All four of these dischargers were included in the projection modeling. They were shown to have little impact on Petit Caillou and as such will remain at their same limits. This permit retains the BOD5 requirements from the previous permit.

LDEQ's position regarding water quality criteria for nutrients, is that when oxygen-demanding substances are controlled and limited in order to ensure that the dissolved oxygen criterion is supported, nutrients are also controlled and limited. See In The Matter of Sierra Club and Louisiana Environmental Network Request for Nutrient Limits. Docket No. AHD-DR-96001. LDEQ April 29, 1996. LAC 33:IX.2707.D.1.f.iii allows the establishment of effluent limitations based on an indicator parameter for the pollutant of concern. LDEQ's consistent approach to controlling nutrients where the WQMP does not otherwise require specific nutrient limitations is achieved by limiting the discharge of oxygen-demanding substances through BOD5 limitations. Compliance with the BOD5 limitations as an indicator parameter will result in the control of nutrients from the discharge sufficient to attain and maintain the applicable water quality standard. Effluent monitoring of the indicator parameter as conducted by the permittee in accordance with the permit in addition to LDEQ's ambient water quality monitoring program will allow for further evaluation by the Department to determine the effectiveness of the limitation. The reopener clause located in Other Conditions of the permit allows the Department to modify or revoke and reissue the permit if the limitations as set on the indicator parameter are shown to no longer attain and maintain applicable water quality standards.

TMDLS for the Fecal Coliform Bacteria, Chlorides, Sulfates, Total Dissolved Solids, Sediment, Total Suspended Solids, and Turbidity for Selected Subsegments in the Terrebonne Basin was finalized on April 19, 2007.

Subsegment 120504 was listed as impaired for fecal coliform bacteria. According to the TMDL report, "For fecal coliform bacteria, LDEQ's policy is to set wastewater permit limits no higher than water quality criteria (i.e., criteria are met at end of pipe). As long as point source discharges of treated wastewater contain parameter levels at or below these permit limits, they should not be a cause of exceedances of the fecal coliform bacteria water quality criteria. Therefore, no change in permit limits is required."

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Standard fecal coliform limits for oyster propagation have been included in the permit at Outfall 002 that will address the potential for further impairment of this waterbody.

6. CHANGES FROM PREVIOUS PERMIT

The text requirement for Taste and Odor has been removed from the permit, because it is no longer listed as an impairment to the waterbody.

7. COMPLIANCE HISTORY/COMMENTS

A. Compliance History

No records of recent compliance actions were found.

An inspection was conducted March 17, 2008. EDMS document 36750818.

B. DMR Review/Excursions - A DMR review was completed for July 2007 through June 2009. The following excursion was reported:

<u>DATE</u>	<u>PARAMETER</u>	<u>OUTFALL</u>	<u>REPORTED VALUE</u>		<u>PERMIT LIMITS</u>	
			<u>MONTHLY AVERAGE</u>	<u>DAILY MAXIMUM</u>	<u>MONTHLY AVERAGE</u>	<u>DAILY MAXIMUM</u>
6/08	Fecal Coliform	002	---	130	---	43

8. EXISTING EFFLUENT LIMITS

Outfall 001 -

BOD Report:Report
 TSS 608:1760 lb/day
 Oil and Grease 192:576 lb/day
 pH 6-9

Outfall 002 -

BOD Report:Report
 TSS 186:560 lb/day
 Oil and Grease 24:72 lb/day
 Fecal Coliform --:43
 pH 6-9

9. ENDANGERED SPECIES

The receiving waterbody, Subsegment 120504 of the Terrebonne Basin is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U.S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated November 17, 2008 from Rieck (FWS) to Nolan (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat. Therefore, the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat.

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10. HISTORIC SITES

The discharge is from an existing facility location, which does not include an expansion on undisturbed soils. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the "Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits" no consultation with the Louisiana State Historic Preservation Officer is required.

11. TENTATIVE DETERMINATION

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in the application.

12. PUBLIC NOTICES

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

13. STORM WATER POLLUTION PREVENTION PLAN (SWP3) REQUIREMENT

A SWP3 is included in the permit because in accordance with LAC 33:IX.2511.A.1, storm water shall not be required to obtain an LPDES permit "... except... discharges associated with industrial activity." In accordance with LAC 33:IX.2511.B.14.a-k, facilities classified as SIC code 2092 are considered to have storm water discharges associated with industrial activity.

For first time permit issuance, the SWP3 shall be prepared, implemented, and maintained within six (6) months of the effective date of the final permit. For renewal permit issuance, the SWP3 shall be reviewed and updated, if necessary, within six (6) months of the effective date of the final permit. The plan should identify potential sources of storm water pollution and ensure the implementation of practices to prevent and reduce pollutants in storm water discharges associated with industrial activity at the facility. (see Narrative Requirements for the AI)

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Rationale for Pearl, Inc.

1. Outfall 001 process wastewater (estimated flow is 192,000 gpd)

<u>Pollutant</u>	<u>Limitation</u> Mo. Avg:Daily Max (lb/day)	<u>Reference</u>
Flow	Report:Report	LAC 33:IX.2707.I.1.B
BOD ₅	Report:Report	Existing LPDES permit
TSS	608:1760	40 CFR 408.122
Oil&Grease	192:576	40 CFR 408.122
pH (s.u.)	6.0: 9.0 (min:max)	40 CFR 408.122

Treatment: screening

Monitoring Frequency: monthly

Limits Justification: 40 CFR 408.122

Calculations:

TSS 38/110 lb/1000 lb and Oil and Grease 12/36 lb/1000 lb
 per phone call: 16,000lbs/day
 $TSS\ 16 \times 38/110 = 608/1760$
 $Oil\ and\ Grease\ 16 \times 12/36 = 192/576$

su Standard Units

2. Outfall 002 process wastewater from breeding operation, treated sanitary wastewater (estimated flow is 4400 gpd)

<u>Pollutant</u>	<u>Limitation</u> Mo. Avg:Daily Max (lb/day)	<u>Reference</u>
Flow	Report:Report	LAC 33:IX.2707.I.1.B
BOD ₅	Report:Report	Existing LPDES permit
TSS	186:560	40 CFR 408.132
Oil&Grease	24:72	40 CFR 408.132
Fecal Coliform	--:43	LAC 33:IX.1113.C.5.d
pH (s.u.)	6.0: 9.0 (min:max)	40 CFR 408.132

Treatment: extended aeration package treatment unit with chlorinator

Monitoring Frequency: monthly

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Limits Justification: 40 CFR 408.132 and LAC 33:IX.1113.C.5.d

Calculations:

TSS 93/280 lb/1000 lb and Oil and Grease 12/36 lb/1000 lb
per Indian Shrimp Co.: 2,000 lb/day
only bread about 2 days a month
TSS $2.0 \times 93/280 = 186/560$ lb/day
Oil and Grease $2.0 \times 12/36 = 24/72$ lb/day

su Standard Units

NOTE

For outfalls containing concentration limits, the usage of concentration limits is based on BPJ for similar outfalls since the flow is variable and estimated.